

REMARKS/ARGUMENTS

Claims 1-3, 6-12, 14-15, 17, 59, and 66-88 are pending. Claims 4-5, 13, 16, 18-19, and 60-65 are cancelled.

Claims 1-3 have been amended to recite that the enzyme activities are fusion proteins comprising the catalytic domain of the enzyme fused to a targeting peptide that targets the ER or Golgi apparatus of the host cell. Support for the amendments can be found throughout the specification, for example in paragraphs [0145]-[0153] and in Example 2. The applicants have amended the claims without prejudice and reserve the right to introduce any cancelled subject matter in one or more subsequent applications.

I. Restriction Requirement

The restriction requirement mailed June 3, 2010, states that the claims are directed to more than one species of the generic invention and that these species lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1

A. The restriction requirement states that claims 1, 66, and 80 are drawn to wild-type or fusion proteins of α 1,2-mannosidase and GnT I and that the applicants must elect one or the other.

The applicants elect for purposes of examination fusion proteins of α 1,2-mannosidase and GnT I. However, to facilitate prosecution, the applicants have amended claim 1 to recite fusion proteins of α 1,2-mannosidase and GnT I.

B. The restriction requirement states that claims 7, 71, and 83 are drawn to one or more nucleic acid molecules having specific transferase activities and one or a specific combination of transferases must be elected.

The applicants elect galactosyltransferase as the species for purposes of examination.

C. The restriction requirement states that claims 70, 82 are drawn to sugar transporters and one or a specific combination of transporters must be elected.

The applicants elect UDP-GlcNAc transporter as the species for purposes of examination.

In light of the above, claims 1-3, 6-12, 14, 15, 17, 59, 66-88 are believed generic for one or more nucleic acid molecules having specific transferase activities and for sugar transporters.

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The restriction requirement states "The special technical feature is yeast that comprise a reduction in alpha 1,6-mannosyltransferase activity, and increases in alpha 1,2-mannosidase and GlcNAc transferase activity. As indicated in the Office Action of September 24, 2009, page 9, the art provides guidance for making this yeast."

The applicants believe that the special technical feature is a yeast (unicellular) or filamentous fungus host cell that (1) has diminished or depleted activity of one or more enzymes in the host cell that transfers a sugar residue to the 1,6 arm of a lipid-linked oligosaccharide structure, (2) lacks α 1,6-mannosyltransferase activity; and (3) includes one or more exogenous nucleic acid molecules encoding α 1,2-mannosidase and GlcNAc transferase activities. The currently claimed host cells are capable of producing recombinant glycoproteins having *N*-glycans attached thereto comprising GlcNAcMan_xGlcNAc₂ core structures, wherein X is 3 or 4.

In view of the foregoing remarks and amendments, it is believed that the previous grounds of rejections have been overcome and that the claims are in proper condition for allowance. Accordingly, Applicants respectfully request that all of the previous rejections be withdrawn and a Notice of Allowance be forwarded to the Applicants. The Examiner is invited to contact Applicants' Attorney at the telephone number given below, if such would expedite the allowance of this application.

CONDITIONAL PETITION

Applicants hereby make a Conditional Petition for any relief available to correct any defect in connection with this filing, or any defect remaining in this application after this filing. The Commissioner is authorized to charge deposit account 13-2755 for the petition fee and any other fee(s) required to effect this Conditional Petition.

Respectfully submitted,

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